

FORM PTO-1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
690022.527C2EXPRESS MAIL NO.  
EV064839733USPTO  
10/05/94  
11046 U.S.

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS  
Scott S. Graves et al.FILING DATE  
January 24, 2002GROUP ART UNIT  
Not yet assigned

01/24/02

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DB	AA	4,237,224	12/02/80	Cohen and Boyer	<del>435</del>	<del>68</del>	
DB	AB	4,399,216	08/16/83	Axel et al.	<del>435</del>	<del>6</del>	
DB	AC	4,468,464	08/28/84	Cohen and Boyer	<del>435</del>	<del>317</del>	
DB	AD	4,634,665	01/06/87	Axel et al.	<del>435</del>	<del>68</del>	
DB	AE	4,656,134	04/07/87	Ringold	<del>435</del>	<del>91</del>	
DB	AF	4,740,470	04/26/88	Cohen and Boyer	<del>435</del>	<del>172.3</del>	
DB	AG	4,816,397	03/28/89	Boss et al.	<del>435</del>	<del>68</del>	
DB	AH	4,816,567	03/28/89	Cabilly et al.	<del>520</del>	<del>387</del>	
DB	AI	4,870,023	09/26/89	Fraser et al.	<del>435</del>	<del>320</del>	
DB	AJ	4,879,236	11/07/89	Smith and Summers	<del>435</del>	<del>235</del>	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
DB	AK	CA 1 316 852 C	04/27/93	Canada		
	AL	EP 045 809 B1	02/17/82	EPO		
	AM	EP 120 694 B1	10/03/84	EPO		
	AN	EP 125 023 B1	11/14/84	EPO		
	AO	EP 173 552 A1	03/05/86	EPO		
DB	AP	EP 239 400 B1	09/30/87	EPO		

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DB	AQ	Abraham et al., "The influence of periodate oxidation on monoclonal antibody avidity and immunoreactivity," <i>J. Immunol. Methods</i> 144(1):77-86, October 15, 1991.
DB	AR	Better et al., "Escherichia coli secretion of an active chimeric antibody fragment," <i>Science</i> 240(4855):1041-1043, May 20, 1988.
DB	AS	Brekke et al., "The structural requirements for complement activation by IgG: does it hinge on the hinge," <i>Immunol Today</i> 16(2): 85-90, 1995.

EXAMINER

Daniel Blumenthal

DATE CONSIDERED

8/11/03

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## APPLICANTS

Scott S. Graves et al.

## FILING DATE

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Not yet assigned

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DB	BA	4,946,778	08/07/90	Ladner et al.	<del>435</del>	<del>69.6</del>	
	BB	4,975,369	12/04/90	Beavers et al.	<del>435</del>	<del>69.1</del>	
	BC	5,015,580	05/14/91	Christou et al.	<del>435</del>	<del>172.3</del>	
	BD	5,041,379	08/20/91	Fraser et al.	<del>435</del>	<del>235.1</del>	
	BE	5,071,748	12/10/91	Miller	<del>435</del>	<del>69.1</del>	
	BF	5,077,214	12/31/91	Guarino and Jarvis	<del>435</del>	<del>240.2</del>	
	BG	5,084,396	01/28/92	Morgan, Jr. et al.	<del>436</del>	<del>515</del>	
	BH	5,091,513	02/25/92	Huston and Oppermann	<del>530</del>	<del>587</del>	
V	BI	5,110,729	05/05/92	Maeda et al.	<del>435</del>	<del>69.1</del>	
DB	BJ	5,120,657	06/09/92	McCabe et al.	<del>435</del>	<del>287</del>	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
DB	BK	EP 260 148 A2	03/16/88	EPO		
	BL	EP 319 206 A2	06/07/89	EPO		
	BM	EP 328 404 B1	08/16/89	EPO		
	BN	EP 338 841 A1	10/25/89	EPO		
V	BO	EP 393 045 B1	10/24/90	EPO		
DB	BP	EP 411 893 A2	02/06/91	EPO		

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DB	BQ	Brüggemann et al., "Comparison Of The Effector Functions Of Human Immunoglobulins Using A Matched Set Of Chimeric Antibodies," <i>J. Exp. Med.</i> 166: 1351-1361, 1987.
DB	BR	Canfield and Morrison, "The Binding Affinity of Human IgG for its High Affinity Fc Receptor Is Determined by Multiple Amino Acids in the C <sub>H</sub> 2 Domain and Is Modulated by the Hinge Region," <i>J. Exp. Med.</i> 173: 1483-1491, 1991.

EXAMINER

David Blahut

DATE CONSIDERED

8/11/03

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<b>INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>				APPLICANTS <b>Scott S. Graves et al.</b>			
				FILING DATE <b>January 24, 2002</b>		GROUP ART UNIT <b>Not yet assigned</b>	

  

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DB	CA	5,122,458	06/16/92	Post et al.	<del>435</del>	<del>69.1</del>	
	CB	5,132,405	07/21/92	Huston and Oppermann	<del>530</del>	<del>387.3</del>	
	CC	5,147,788	09/15/92	Page and Rodgers	<del>435</del>	<del>69.1</del>	
	CD	5,149,655	09/22/92	McCabe and Martinell	<del>435</del>	<del>287</del>	
	CE	5,155,037	10/13/92	Summers	<del>435</del>	<del>240.2</del>	
	CF	5,162,222	11/10/92	Guarino and Jarvis	<del>435</del>	<del>240.2</del>	
	CG	5,169,784	12/08/92	Summers and Oker-Blom	<del>435</del>	<del>920.1</del>	
	CH	5,169,939	12/08/92	Geftter et al.	<del>530</del>	<del>387.3</del>	
	CI	5,179,007	01/12/93	Jarvis and Carrington	<del>435</del>	<del>68.1</del>	
DB	CJ	5,179,017	01/12/93	Axel et al.	<del>435</del>	<del>240.2</del>	

  

FOREIGN PATENT DOCUMENTS						
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
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DB	CK	EP 451 216 B1	10/16/91	EPO		
	CL	EP 460 167 B1	12/11/91	EPO		
	CM	EP 520 962 A2	12/30/92	EPO		
	CN	EP 578 515 A2	01/12/94	EPO		
	CO	EP 592 106 A1	04/13/94	EPO		
DB	CP	EP 614 982 A1	09/14/94	EPO		

  

OTHER PRIOR ART <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>		
DB	CQ	Co et al., "Genetically engineered deglycosylation of the variable domain increases the affinity of an anti-CD33 monoclonal antibody," <i>Molecular Immunology</i> 30(15):1361-1367, October 1993.
DB	CR	Couto et al., "Cloning of cDNAs encoding the variable domains of antibody KC4G3 and construction of a chimeric antibody," <i>Hybridoma</i> 12(4):485-489, August 1993.
EXAMINER <i>David Bluh</i>		DATE CONSIDERED <b>8/11/03</b>

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<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<b>DB</b>	DA	5,185,254	02/09/93	Linnenbach	<del>435</del>	<del>172.3</del>	
	DB	5,225,539	07/06/93	Winter	<del>530</del>	<del>387.3</del>	
	DC	5,260,203	11/09/93	Ladner et al.	<del>435</del>	<del>172.3</del>	
	DD	5,266,314	11/30/93	Maeda	<del>424</del>	<del>93 A</del>	
	DE	5,304,489	04/19/94	Rosen	<del>435</del>	<del>320.1</del>	
	DF	5,322,774	06/21/94	Peakman et al.	<del>435</del>	<del>69.1</del>	
	DG	5,348,886	09/20/94	Lee et al.	<del>435</del>	<del>320.1</del>	
	DH	5,348,887	09/20/94	Bumol et al.	<del>435</del>	<del>320.1</del>	
	DI	5,349,053	09/20/94	Landolfi	<del>530</del>	<del>351</del>	
<b>DB</b>	DJ	5,385,839	01/31/95	Stinski	<del>435</del>	<del>240.2</del>	
<b>FOREIGN PATENT DOCUMENTS</b>							
	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION			
<b>DB</b>				YES	NO		
	DK	EP 682 040 A1	11/15/95	EPO			
	DL	EP 699 755 A2	03/06/96	EPO			
	DM	GB 2 188 638 A	10/07/87	Great Britain			
	DN	WO 84/03712	09/27/84	WIPO			
	DO	WO 86/01533	03/13/86	WIPO			
<b>DB</b>	DP	WO 86/02097	04/10/86	WIPO			
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
<b>DB</b>	DQ	Davis et al., "Glycosylation governs the binding of anti-peptide antibodies to regions of hypervariable amino acid sequence within recombinant gp120 of human immunodeficiency virus type 1," <i>J. General Virology</i> 71:2889-2898, December 1990.					
<b>DB</b>	DR	Dorai et al., "Aglycosylated Chimeric Mouse/Human IgG1 Antibody Retains Some Effector Function," <i>Hybridoma</i> 10(2): 211-217, 1991.					
EXAMINER <b>Paul Blahut</b>				DATE CONSIDERED <b>8/11/03</b>			
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DB	EA	5,405,779	04/11/95	McCabe and Burkholder	<del>435</del>	<del>287</del>	
	EB	5,413,923	05/09/95	Kucherlapati et al.	<del>435</del>	<del>172.3</del>	
	EC	5,422,281	06/06/95	Harris and Oh	<del>436</del>	<del>501</del>	
	ED	5,434,340	07/18/95	Krimpenfort et al.	<del>800</del>	<del>2</del>	
	EE	5,443,953	08/22/95	Hansen et al.	<del>424</del>	<del>149</del>	
	EF	5,464,764	11/07/95	Capecci and Thomas	<del>435</del>	<del>172.3</del>	
	EG	5,476,786	12/19/95	Huston	<del>435</del>	<del>252.33</del>	
	EH	5,487,992	01/30/96	Capecchi et al.	<del>435</del>	<del>172.3</del>	
	EI	5,503,998	04/02/96	Christou et al.	<del>435</del>	<del>172.3</del>	
DB	EJ	5,506,125	04/09/96	McCabe and Heinzen	<del>435</del>	<del>172.1</del>	

## FOREIGN PATENT DOCUMENTS

DB		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
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	EK	WO 86/05807	10/09/86	WIPO		
	EL	WO 87/04462	07/30/87	WIPO		
	EM	WO 88/01649	03/10/88	WIPO		
	EN	WO 88/06630	09/07/88	WIPO		
	EO	WO 89/01036	02/09/89	WIPO		
DB	EP	WO 89/09825	10/19/89	WIPO		

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

DB	EQ	Dwek et al., "Glycobiology: 'the function of sugar in the IgG molecule'," <i>J. Anatomy</i> 187:279-292, October 1995.
DB	ER	Endo et al., "Glycosylation of the variable region of immunoglobulin G—site specific maturation of the sugar chains," <i>Molecular Immunology</i> 32(13):931-940, September 1995.
EXAMINER		DATE CONSIDERED

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APPLICANTS

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DB	FA	5,525,510	06/11/96	McCabe and Swaine	<del>435</del>	<del>285.3</del>	
	FB	5,530,101	06/25/96	Queen and Selick	<del>530</del>	<del>387.3</del>	
	FC	5,545,403	08/13/96	Page	<del>424</del>	<del>133.1</del>	
	FD	5,545,404	08/13/96	Page	<del>424</del>	<del>133.1</del>	
	FE	5,545,405	08/13/96	Page	<del>424</del>	<del>133.1</del>	
	FF	5,545,806	08/13/96	Lonberg and Kay	<del>800</del>	<del>2</del>	
	FG	5,569,825	10/29/96	Lonberg and Kay	<del>800</del>	<del>2</del>	
	FH	5,578,287	11/26/96	Theodore et al.	<del>424</del>	<del>1.49</del>	
	FI	5,584,807	12/17/96	McCabe	<del>604</del>	<del>71</del>	
DB	FJ	5,585,089	12/17/96	Queen and Selick	<del>424</del>	<del>133.1</del>	

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
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DB	FK	WO 89/10404	11/02/89	WIPO		
	FL	WO 90/04036	04/19/90	WIPO		
	FM	WO 90/10457	09/20/90	WIPO		
	FN	WO 91/06320	03/16/91	WIPO		
	FO	WO 91/06657	05/16/91	WIPO		
	FP	WO 91/09967	07/11/91	WIPO		
DB	FQ	WO 92/04381	03/19/92	WIPO		

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

DB	FR	Geysen et al., "Use of Peptide Synthesis to Probe Viral Antigens for Epitopes to a Resolution of a Single Amino Acid," <i>P.N.A.S. USA</i> 81(13):3998-4002, July 1984.
DB	FS	Goshorn et al., "Preclinical Development of huNR-LU-10, a Humanized Antibody for Tumor Targeting," <i>Immunotechnology</i> 2(4):300, 1996

EXAMINER

*David Blumberg*

DATE CONSIDERED

*8/11/03*

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<b>DB</b>	GA	5,585,097	12/17/96	Bolt et al.	<del>424</del>	<del>133.1</del>	
<b>DB</b>	GB	5,624,821	04/29/97	Winter et al.	<del>435</del>	<del>69.6</del>	
<b>FOREIGN PATENT DOCUMENTS</b>							
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					YES	NO	
<b>DB</b>	GC	WO 92/11018	07/09/92	WIPO			
	GD	WO 92/15683	09/17/92	WIPO			
	GE	WO 92/22653	12/23/92	WIPO			
	GF	WO 93/08300	04/29/93	WIPO			
	GG	WO 93/11238	06/10/93	WIPO			
	GH	WO 93/12246	06/24/93	WIPO			
<b>DB</b>	GI	WO 93/16185	08/19/93	WIPO			
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
<b>DB</b>	GJ	Greenman et al., "The use of intracellular single-chain antibody fragments to inhibit specifically the expression of cell surface molecules," <i>J. Immunol. Methods</i> 194(2):169-180, August 14, 1996.					
<b>DB</b>	GK	Greenspan et al., "Defining epitopes: It's not as easy as it seems," <i>Nature Biotechnology</i> 17(10):936-937, October 1999.					
<b>DB</b>	GL	Hand et al., "Comparative biological properties of a recombinant chimeric anti-carcinoma mAb and a recombinant aglycosylated variant," <i>Cancer Immunology Immunotherapy</i> 35: 165-174, 1992.					
<b>DB</b>	GM	Helfrich et al., "Epitope Mapping Of SCLC-Cluster-2 Mabs And Generation Of Antibodies Directed Against New EGP-2 Epitopes," <i>Int. J. Cancer: Supplement</i> 8: 64-69, 1994.					
<b>DB</b>	GN	Herlyn et al., "CO 17-1A and Related Monoclonal Antibodies: Their Production and Characterization," <i>Hybridoma</i> 5(Suppl. 1): S3-S10, 1986.					
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<b>FOREIGN PATENT DOCUMENTS</b>							
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DB	HB	WO 93/17105	09/02/93	WIPO			
	HC	WO 93/22332	11/11/93	WIPO			
	HD	WO 93/22442	11/11/93	WIPO			
	HE	WO 93/23537	11/25/93	WIPO			
	HF	WO 93/25240	12/23/93	WIPO			
	HG	WO 94/04679	03/03/94	WIPO			
	HH	WO 94/09131	04/28/94	WIPO			
	HI	WO 94/12625	06/09/94	WIPO			
✓	HJ	WO 94/22902	10/13/94	WIPO			
DB	HK	WO 94/29451	12/22/94	WIPO			
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
DB	HL	Heyman et al., "Carbohydrate chains on IgG2b: a requirement for efficient feedback immunosuppression," <i>J. Immunology</i> 134(6):4018-4023, June 1985.					
DB	HM	Houba et al., "Improved Characteristics of a Human $\beta$ -Glucuronidase-Antibody Conjugate after Deglycosylation for Use in Antibody-Directed Enzyme Prodrug Therapy," <i>Bioconjugate Chem.</i> 7: 606-611, 1996.					
DB	HN	Kabat, "The Structural Basis Of Antibody Complementarity," <i>Adv. Protein Chem.</i> 32: 1-75, 1978.					
DB	HO	Leij et al., "SCLC-Cluster-2 Antibodies Detect The Pancarcinoma/Epithelial Glycoprotein EGP-2," <i>Int. J. Cancer: Supplement</i> 8: 60-63, 1994.					
DB	HP	Leung et al., "Construction and characterization of a humanized, internalizing, B-cell (CD22)-specific, leukemia/lymphoma antibody, LL2," <i>Molecular Immunology</i> 32(17-18):1413-1427, December 1995.					
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		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION		
					YES	NO	
<b>DB</b>	IB	WO 95/08577	03/30/95	WIPO			
	IC	WO 95/15341	06/08/95	WIPO			
	ID	WO 95/15335	06/08/95	WIPO			
	IE	WO 95/15769	06/15/95	WIPO			
	IF	WO 95/20672	08/03/95	WIPO (+ WPI Acc. No. 95-275457)			X
	IG	WO 95/25167	09/21/95	WIPO			
	IH	WO 96/05228	02/22/96	WIPO			
	II	WO 96/11013	04/18/96	WIPO			
<b>DB</b>	IJ	WO 96/27011	09/06/96	WIPO			
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
<b>DB</b>	IK	Litvinov et al., "Ep-CAM: A Human Epithelial Antigen Is a Homophilic Cell-Cell Adhesion Molecule," <i>The Journal of Cell Biology</i> 125(2): 437-446, 1994.					
	IL	Lund et al., "Control of IgG/Fc Glycosylation: A Comparison Of Oligosaccharides From Chimeric Human/Mouse and Mouse Subclass Immunoglobulin," <i>Molecular Immunology</i> 30(8): 741-748, 1993.					
	IM	McCloskey et al., "Human constant regions influence the antibody binding characteristics of mouse-human chimeric IgG subclasses," <i>Immunology</i> 88: 169-173, 1996.					
	IN	Morgan et al., "The N-terminal end of the C <sub>H</sub> 2 domain of chimeric human IgG1 anti-HLA-DR is necessary for C1q, FcγRI and FcγRIII binding," <i>Immunology</i> 86: 319-324, 1995.					
	IO	Morrison, "In vitro antibodies: strategies for production and application," <i>Annu. Rev. Immunol.</i> 10:239-265, December 31, 1992.					
<b>DB</b>	IP	Muraoka et al., "Structural requirements for IgM assembly and cytolytic activity," <i>J. Immunology</i> 142(2):695-701, January 15, 1989.					
EXAMINER <i>Tamara Blumel</i>				DATE CONSIDERED <b>8/11/03</b>			
* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).							

FORM PTO-1449 (REV. 7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 690022.527C2	EXPRESS MAIL NO. EV064839733US
<b>INFORMATION DISCLOSURE STATEMENT</b> (Use several sheets if necessary)		APPLICANTS Scott S. Graves et al.	
		FILING DATE January 24, 2002	GROUP ART UNIT Not yet assigned

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JA						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
				YES	NO
JB					

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

DB	JC	Nishimura et al., "Recombinant human-mouse chimeric monoclonal antibody specific for common acute lymphocytic leukemia antigen," <i>Cancer Research</i> 47(4):999-1005, 1987.
	JD	Peake et al., "Does non-enzymatic glycosylation affect complement function in diabetes?" <i>Diabetes Research</i> 11(3):109-114, July 1989.
	JE	Pound et al., "Aglycosylated chimaeric human IgG3 can trigger the human phagocyte respiratory burst," <i>Molecular Immunology</i> 30(3):233-241, February 1993.
	JF	Rodwell, "Engineering Monoclonal Antibodies," <i>Nature</i> 342(6245):99-100, November 2, 1989.
	JG	Sarmay et al., "Mapping and comparison of the interaction sites on the Fc region of IgG responsible for triggering antibody dependent cellular cytotoxicity (ADCC) through different types of human Fc gamma receptor," <i>Molecular Immunology</i> 29(5):633-639, May 1992.
	JH	Strnad et al., "Molecular Cloning and Characterization of a Human Adenocarcinoma/Epithelial Cell Surface Antigen Complementary DNA," <i>Cancer Research</i> 49: 314-317, 1989.
	JI	Szala et al., "Molecular cloning of cDNA for the carcinoma-associated antigen GA733-2," <i>Proc. Natl. Acad. Sci. USA</i> 87: 3542-3546, 1990.
	JJ	Tachibana et al., "Identification of hybrid-type carbohydrate chains on the light chain of human monoclonal antibody specific to lung adenocarcinoma," <i>Biochemica et Biophysica Acta</i> 1182(3):257-263, October 20, 1993.
✓	JK	Tams and Welinder, "Mild Chemical Deglycosylation of Horseradish Peroxidase Yields a Fully Active, Homogenous Enzyme," <i>Analytical Biochemistry</i> 228: 48-55, 1995.
DB	JL	Tao and Morrison, "Studies Of Aglycosylated Chimeric Mouse-Human IgG. Role of Carbohydrate in the Structure and Effector Functions Mediated by the Human IgG Constant Region," <i>Journal Of Immunology</i> 143: 2595-2601, 1989.

EXAMINER



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				FILING DATE <b>January 24, 2002</b>		GROUP ART UNIT <b>Not yet assigned</b>	
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*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
KA							
<b>FOREIGN PATENT DOCUMENTS</b>							
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KB							
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
DB	KC	Tao et al., "Studies of aglycosylated chimeric mouse-human IgG. Role of carbohydrate in the structure and effector functions mediated by the human IgG constant region," <i>J. Immunol.</i> 143(8):2595-2601, October 15, 1989.					
	KD	Tao et al., "The Differential Ability of Human IgG1 and IgG4 to Activate Complement Is Determined by the COOH-terminal Sequence of the C <sub>H</sub> 2 Domain," <i>J. Exp. Med.</i> 173: 1025-1028, 1991.					
	KE	Taylor et al., "Altered glycosylation and selected mutation in recombinant human complement component C9: effects on haemolytic activity," <i>Immunology</i> 83(3):501-506, November 1994.					
	KF	Verhoeven et al., "Engineering of Antibodies," <i>BioEssays</i> 8(2):74-78, March 1988.					
	KG	Weiden et al., "Rhenium-186-labeled chimeric antibody NR-LU-13: pharmacokinetics, biodistribution and immunogenicity relative to murine analog NR-LU-10," <i>J. Nucl. Med.</i> 34(12):2111-2119, December 1993.					
	KH	Winkelhake et al., "Effects of pH Treatments and Deglycosylation of Rabbit Immunoglobulin G on the Binding of C1q," <i>The Journal Of Biological Chemistry</i> 255(7): 2822-2828, 1980.					
↓	KI	Woof and Amin, "The Role of Glycosylation in Antibody Effector Function," <i>GlycoNews Second</i> 94: 1-4, 1994.					
DB	KJ	Xia et al., "Efficient complement-mediated lysis of cells containing the CAMPATH-1 (CDw52) antigen," <i>Molecular Immunology</i> 30(12):1089-1096, August 1993.					
EXAMINER <i>Paul Blahut</i>				DATE CONSIDERED <i>8/11/03</i>			
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690022.527C2EXPRESS MAIL NO.  
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APPLICANTS

Scott S. Graves et al.

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January 24, 2002

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Not yet assigned

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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**FOREIGN PATENT DOCUMENTS**

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	LL					
	LM					
	LN					
	LO					
	LP					

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

DB	LQ	Xia et al., "Structure of the CAMPATH-1 antigen, a glycosylphosphatidylinositol-anchored glycoprotein which is an exceptionally good target for complement lysis," <i>Biochemical Journal</i> 293:633-640, August 1, 1993.
DB	LR	Yoshida et al., "Mutants of Dictyostelium discoideum with altered carbohydrate moieties of contact site A," <i>Cell Structure and Function</i> 16(5):383-390, October 1991.

EXAMINER

*David Bluhel*

DATE CONSIDERED

8/11/03

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U.S. DEPARTMENT OF COMMERCE  
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ATTY. DOCKET NO.  
690022.527C2

APPLICATION NO.  
10/056,794

APPLICANTS

Scott S. Graves et al.

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FILING DATE

January 24, 2002

GROUP ART UNIT

1642

INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DB	AA	5,202,422	04/13/93	Hiatt et al.	530	387.3	
DB	AB	5,639,947	06/17/97	Hiatt et al.	800	205	
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	AI						
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					YES	NO
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	AM					
	AN					
	AO					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AP	
	AQ	
	AR	

EXAMINER

*Paul Blum*

DATE CONSIDERED

7/28/03

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